Serial No.: 09/676,875
Reply to Office Action of: May 6, 2003
Atty. Docket No.: ECB-0004

LISTING OF CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application. Claim 1 is the sole claim being currently submitted for amendment in this office action response.

1. **(CURRENTLY AMENDED)** A method for decreasing sulfur levels in an olefinic naphtha feedstream comprising the steps of (1) passing the olefinic naphtha feedstream to a hydrodesulfurization zone under hydrodesulfurization conditions to produce a mercaptan sulfur containing olefinic naphtha feedtream containing less than 30 wppm of non-mercaptan sulfur, and (2) passing the product from step (1) over a fixed bed catalyst in a three phase, gas, liquid, solid, system in the presence of a stripping gas, for a time and at a temperature and pressure sufficient to decompose at least a portion of said mercaptans to produce olefins, H_2S as an off gas, and a hydrocarbon product stream having decreased amounts of mercaptan sulfur from said H_2S and said stripping gas, and wherein when said stripping gas is a gas stream comprising hydrogen, said fixed catalyst bed ~~comprises~~ **consisting essentially of** a non-reducible metal oxide, and wherein when said stripping gas ~~is an~~ **consists essentially of a non-hydrogenating** inert gas, said fixed bed catalyst comprises a Group VIIIB metal promoted Group VIB catalyst.

2. (ORIGINAL) The method of claim 1 wherein said inert gas is selected from helium, nitrogen, argon, methane, natural gas, light ends and mixtures thereof.

3. (ORIGINAL) The method of claim 1 wherein said non-reducible metal oxide catalyst is selected from alumina, silica-alumina,

magnesium oxide, and mixtures thereof and said Group VIIIB promoted Group VIB catalyst is selected from the group consisting of cobalt, and nickel promoted molybdenum catalysts.

4. (PREVIOUSLY AMENDED) The method of claim 2 wherein when said stripping gas is a gas stream comprising hydrogen and said catalyst is a Group VIIIB promoted Group VIB catalyst, said stripping gas comprises no more than 1/2 mole % hydrogen sulfide and no more than 50 mole % hydrogen.

5. (CANCELLED)

6. (CANCELLED)

7. (PREVIOUSLY AMENDED) The method of claim 1 wherein said hydrodesulfurization step is a selective hydrodesulfurization step wherein sulfur is removed without substantially saturating olefins and without substantially changing the octane number.

8. (CANCELLED)

9. (ORIGINAL) The method of claim 1 wherein said three phase system is a countercurrent system.

10. (ORIGINAL) The method of claim 1 wherein said three phase system is a concurrent system.

11. (ORIGINAL) The method of claim 3 wherein said catalysts are sulfided catalysts.

12. (CANCELLED)

13. (PREVIOUSLY AMENDED) The method of claim 1 wherein said mercaptan sulfur containing olefinic naphtha feedstream contains less than 30 ppm of non-mercaptan sulfur and greater than 30 ppm of mercaptan sulfur.

14. (CANCELLED).